



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,789	07/02/1999	FREDERICK E. NIEMI	112025-0125	2883

24267 7590 05/18/2004  
CESARI AND MCKENNA, LLP  
88 BLACK FALCON AVENUE  
BOSTON, MA 02210

EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
----------	--------------

2126

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



70

<b>Office Action Summary</b>	<b>Application No.</b> 09/346,789	<b>Applicant(s)</b> NIEMI, FREDERICK E.	
	<b>Examiner</b> Lewis A. Bullock, Jr.	<b>Art Unit</b> 2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



## DETAILED ACTION

### *Drawings*

1. The drawings were received on 9/11/03. These drawings are approved.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 7-9, 11, 13-18, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by WALDO (US 6,185,611).

As to claim 1, WALDO teaches a method for use in a computer network (distributed system) having a process manager (lookup service) and a network management station (client) for reporting to the network management station (client) the addition of new applications or processes (new services wherein a service is an application or utility) to the computer network, the method comprising the steps of: providing a configuration service layer (discovery server) in communicating relationship with a new application or process (new service) and the process manager (lookup service); in response to opening the new application or process (new service), issuing a registration service request from the new application or process to the process manager



through the configuration service layer (register new service with the lookup service wherein the location of the lookup service is provided by the discovery server); establishing a method at the network management station (client) for persistently and continuously listening for messages (event notifications) from the process manager (lookup service) (via registering for notification); in response to receiving the registration service request (registration of new service) at the process manager (lookup service), generating and forwarding a notification message (notification) that identifies the new application or process (new service) to the network management station (client); and automatically displaying the notification message (via screen of available services) at the network management station (client) without having to close and re-start the management station (clients can avoid attempting to access a service that is no longer available and can make use of new services as soon as they are added to the lookup service) (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18).

As to claim 8, WALDO teaches a computer workstation (client) for use in a computer network having at least one process manager (lookup service), the workstation comprising: at least one application or process (new services wherein a service is an application or utility); a network communication facility (Java runtime environment); a configuration service layer (discovery server) in communicating relationship with the at least one application or process (new service) and the network communications facility (Java runtime environment) (fig. 2), , wherein the at least one



Art Unit: 2126

application or process (new service) and the configuration service layer (discovery server) cooperate to generate and issue, a registration service request (register new service with the lookup service wherein the location of the lookup service is provided by the discovery server) to the at least one process manager (lookup service) upon opening of the at least one application or process (new service) at the computer workstation (client) (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18).

As to claim 2, WALDO teaches creating a process manager window (screen) at the network management station (client) that displays a list of applications and processes opened in the computer network (available services); and in response to receiving the notification message (notification that another client added a service), adding the new application or process (new service) to the list of applications and processes displayed in the process manager window (screen) (col. 12, lines 20 – 64; col. 11, line 52 – col. 12, line 19; col. 2, line 50-62).

As to claims 7 and 11, reference is made to a computer readable medium that corresponds to the methods of claims 1 and 2 and is therefore met by the rejection of claims 1 and 2 above.

As to claim 9, WALDO teaches detecting a new device (new service wherein service is a device) added to the network; and upon detecting the new device (new



Art Unit: 2126

service), generating a second notification object (notification); and passing the second notification object to the network management station (client) (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18).

As to claim 13, refer to claim 2 for rejection.

As to claim 14, WALDO teaches the user interface application (client / program / browser) is configured to receive the notification message (notification) and display the notification message at the network management station without having to close and restart the management station (clients can avoid attempting to access a service that is no longer available and can make use of new services as soon as they are added to the lookup service) (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18)..

As to claim 15, WALDO teaches a topology server (discovery server / lookup service) configured to detect a new device (new service wherein service is a device) added to the network and upon detecting the new device, to issue a notification object (notification) to a user application interface station (client) (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18).



As to claim 16, WALDO teaches a system for dynamically modifying the configuration, settings and other parameters with one or more applications or processes running in a computer network, the system comprising: means for registering with a process manager (look up service) upon opening an application or process (new services wherein a service is an application or utility); means for generating a notification object (notification) upon the registration of an opened application or process (register new service with the lookup service wherein the location of the lookup service is provided by the discovery server), wherein the notification object contains a reference identifying the opened application or process (i.e. stub or object); means for passing the notification object to one or more user interface applications (client); and means for presenting the notification object (notification) in one user interface application (client) without having to close and re-start the respective user interface application (clients can avoid attempting to access a service that is no longer available and can make use of new services as soon as they are added to the lookup service) (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18).

As to claim 17, WALDO teaches each user interface application (client / program / browser) contains a window (screen), the system comprising: means for displaying the notification object (notification that another client added a service) in one window contained in a user interface application (client) (col. 12, lines 20 – 64; col. 11, line 52 – col. 12, line 19; col. 2, line 50-62).



As to claim 18, WALDO teaches means for creating a process manager window (screen) that displays a list of applications and processes opened in the computer network (available services); and means for adding an application or process (new service) to the list of applications and processes (available services) displayed in the process manager window in response to receiving the notification object (col. 12, lines 20 – 64; col. 11, line 52 – col. 12, line 19; col. 2, line 50-62).

As to claims 20 and 21, WALDO teaches means for detecting a new device (new service) added to the network (via discovery server / lookup service); and means for issuing a service request (access the device) to a user application interface (client) upon detecting the new device, wherein the service request contains a name identifying the new device (via icons); means for receiving the service request at a user application (client) (via selection of icon); and means for adding the name identifying the new device to a list of devices displayed in a window presented on a display screen of a workstation (via add a service) (col. 12, lines 20 – 64; col. 11, line 52 – col. 12, line 19; col. 2, line 50-62).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



Art Unit: 2126

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over WALDO (US 6,185,611) in view of "Monitoring Distributed Systems" by JOYCE .

As to claim 10, WALDO teaches the detection and notification of devices as well as processes (col. 2, lines 50-62; col. 4, lines 11-63; col. 5, line 48-col. 6, line 8; col. 6, lines 45 – col. 7, line 31; col. 10, line 46 – col. 12, line 18). However, WALDO does not teach the displaying of a location.

JOYCE teaches in response to receiving a notification object (event), displaying a name and a location (vaxc.Calgary / vaxa.Vancouver....) associated with the new object at the network management station (console) (pg. 140, fig.12). Therefore, it would be obvious to combine the teachings of WALDO with the teachings of JOYCE in order to enable a system of processes spanning multiple machines to be observed and controlled from a single workstation (pg. 125, A Distributed Monitoring System).

6. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WALDO in view of "Unifying Distributed Processing and Open Hypermedia through a Heterogeneous Communication Model" by GOOSE et al.

As to claim 12, WALDO substantially discloses the invention. However, WALDO does not teach the obtaining and displaying of a status object. GOOSE teaches wherein a process has parameters (state) associated with a status function (launch function), comprising the steps of: in response to selecting the process (select a particular process) from the process manager window (initial display), obtaining a



Art Unit: 2126

respective status object (top-level interface) from the new process; and displaying the obtained status object (top-level interface) (pg. 10, To provide a consistent and central interface to the processes, the process manager of the HCM was extended to allow each process to be configured and manipulated through it. As the PH of each process executes, a launch message is received by the PM. The initial display on the PM is a list of processes in the system, which is updated dynamically. A user can select a particular process, which instructs the PH of the selected process to display its top-level interface.”). It is inherent that since WALDO displays the new process (new service created) along with already executing processes (services previously known) that the combination allows for the display and manipulation of parameters of the new process as well by the client. It is also well known in the art at the time of the invention that buttons on a window or display are used to invoke methods or access data and therefore obvious that a button on the display when invoked would obtain and display the status object. Therefore, it would be obvious to combine the teachings of WALDO with the teachings of GOOSE in order to allow the user and other processes the ability to call forward the interfaces of both local and remote processes (pg. 10).

As to claim 19, refer to claim 12 for rejection.

7. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over WALDO (US 6,185,611) in view of “Red Hat Linux Unleashed” by HUSAIN.



As to claim 3, WALDO substantially discloses the invention above. However, WALDO does not teach the displaying of a status, start time and location.

HUSAIN teaches displaying a status (stat column), a start time (start time column) and a location (TTY) of the processes (pg. 3 and 4-6, ps command output / useful ps options). It is inherent based on the combination that since the status is sent from the process that other pertinent information of the processes, i.e. its starting time, are also sent. Therefore, it would be obvious to combine the teachings of WALDO with the teachings of HUSAIN in order to display other pertinent information of currently executing processes.

As to claim 4, HUSAIN teaches the status includes one of up (running) (pg. 3, "The STAT column....").

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WALDO in view of HUSAIN as applied to claim 3 above, and further in view of "Unifying Distributed Processing and Open Hypermedia through a Heterogeneous Communication Model" by GOOSE et al.

As to claim 5, the combination substantially discloses the invention. However, the combination does not teach the obtaining and displaying of a status object. GOOSE teaches wherein a process has parameters (state) associated with a status function (launch function), comprising the steps of: in response to selecting the process (select a particular process) from the process manager window (initial display), obtaining a



Art Unit: 2126

respective status object (top-level interface) from the new process; and displaying the obtained status object (top-level interface) (pg. 10, To provide a consistent and central interface to the processes, the process manager of the HCM was extended to allow each process to be configured and manipulated through it. As the PH of each process executes, a launch message is received by the PM. The initial display on the PM is a list of processes in the system, which is updated dynamically. A user can select a particular process, which instructs the PH of the selected process to display its top-level interface.”). It is inherent that since WALDO displays the new process (new service created) along with already executing processes (services previously known) that the combination allows for the display and manipulation of parameters of the new process as well by the client. It is also well known in the art at the time of the invention that buttons on a window or display are used to invoke methods or access data and therefore obvious that a button on the display when invoked would obtain and display the status object. Therefore, it would be obvious to combine the teachings of WALDO with the teachings of HUSAIN and GOOSE in order to allow the user and other processes the ability to call forward the interfaces of both local and remote processes (pg. 10).

As to claim 6, GOOSE teaches the step of modifying (alter) the respective parameters (state) of the process automatically and dynamically in response to manipulations of the status object (top-level interface) displayed (pg. 10, “A user can select a particular process...From here, all data from the user interface is passed



directly to the selected PH and the user can alter or interrogate the state of that process.”).

9. Claims 8, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Monitoring Distributed Systems” by JOYCE in view of BONNELL (US 5,655,081).

As to claim 8, JOYCE teaches a computer workstation (console) for use in a computer network having at least one process manager (controller), the workstation comprising: at least one application or process (created monitorable process); a configuration service (channel) in communicating relationship with the at least one application or process (created monitorable process), wherein the at least one application or process and the configuration service layer cooperate to generate and issue, a registration service request (event / monitoring information) to the at least one process manager (controller) upon opening of the at least one application or process at the computer workstation (see fig. 5; pg. 130, Consoles, “When a monitorable process enters a Jipc system, or is created, it is automatically included in any monitoring session active on its host machine...Monitoring information is collected automatically, and all consoles receive monitoring information in a predefined format from a single controller..”; pg. 129-130, “A system can contain only one controller, its purpose is to serve as a central site through which all events reported to the channels must pass before they are distributed to the consoles.”; pg. 128, “A monitorable event occurs whenever a process initiates or completes any of the following operations: entering or leaving a Jipc system...”; pg. 130, Consoles, “Monitoring information is collected



Art Unit: 2126

automatically, and all consoles receive monitoring information in a predefined format from a single controller..."; pg. 130, "Consoles for displaying individual Jipc events...have been built."; pg. 139-140, An Event Line Console; pg. 140, "A process's event line is blank before it enters the Jipc system or is created and after it leaves the Jipc system or is killed."). However, JOYCE does not teach a network communication facility wherein a registration request is sent through the network communication facility.

BONNELL teaches a network communication facility (communications module of agent computer / communications module of manager software system) (col. 3, lines 10-15; col. 2, line 67 – col. 3, line 2; col. 9, lines 40-60) wherein the configuration service layer (agent software) generates and issues a registration request (information / state of resources and processes) through the network communication facility (col. 7, lines 1-12). Therefore, it would be obvious at the time of the invention to combine the teachings of JOYCE with the teachings of BONNELL in order to facilitate an enterprise management system that will increase automation and efficiency in network management and decrease the complexity of such management (col. 6, lines 20-47).

As to claim 13, JOYCE teaches a user interface application (console), wherein the process manager (controller) is configured to generate and forward a notification message (monitoring information / events) that identifies the new application or process (created processes) to the user interface application (console) in response to receiving the registration service request (process has entered the system) (pg. 139-140).



As to claim 15, BOYCE teaches a topology server (agent software system) configured to detect a new device (resource) added to the network and, upon detecting the new device (resource), to issue a notification object (monitoring event) to a user application interface (console) (abstract; col. 7, lines 1-14).

### ***Response to Arguments***

4. Applicant's arguments filed 3/3/04 have been fully considered but they are not persuasive.

Applicant argues that Waldo fails to teach or suggest applicants claimed "in response to opening the new application or process, issuing a registration service request from the new application or process to the process manager" and "generating and forwarding a notification message that identifies the new application or process to the network management station." Applicant supports such an allegation by stating that Waldo's use of a client discovering a lookup service by receiving an interface and using the interface to invoke functions provided by the lookup service to add, delete and access services does not Applicants limitation in response to opening a new application or process, issuing a registration service request from the new application or process to a process manager. The examiner disagrees. The argued limitation discloses in response to opening a new application or process, issuing a registration service request from the new application or process to a process manager. The examiner has equated the new application or process to a newly instantiated process that registers with a look



Art Unit: 2126

up service, herein equated to be the process manager. Waldo teaches when a new service is created, the service registers itself with the lookup service, providing an initial collection of attributes (col. 6, lines 66 – col. 7, line 1). The registration is performed by calling a ServiceRegistrar interface of the lookup service (col. 8, lines 17-67). The service finds the lookup service by querying a discovery server for the location of the lookup service. Further, the lookup service provides an event mechanism that generates notifications as new services are registered, existing services are deleted, or attributes of a service are modified. To use the event mechanism, a client registers to be notified upon the occurrence of a particular event, and when the event occurs, the lookup service notifies the client (col. 7, lines 11-19). Therefore, the Examiner believes Waldo teaches in response to opening a new application or process (instantiating a new service), issuing a registration service request from the new application or process to a process manager (via registering the service with the lookup service). Applicant argues that this teaching is different from Applicant's claimed step because the calling of a ServiceRegistrar function is different than issuing a registration service request. The examiner disagrees. First, Applicant provides no reasoning of what Applicant intends the registration request to be to compare to the Examiner's interpretation. Applicants claims are broad in scope that it encompasses the Examiners interpretation of issuing of a service request, i.e. the calling of the ServiceRegistrar function, and therefore, the Examiner believes that the limitation is met by Waldo. Applicant then argues that Waldo does not teach "generating and forwarding a notification message that identifies the new application or process to the network management station" but at best teaches invoking



a callback function to notify a client that an event has occurred. The examiner disagrees. Applicant provides no reasoning of what Applicant intends the generating and forward of a notification message to be to compare to the Examiner's interpretation. Applicants claims are broad in scope that it encompasses the Examiners interpretation of generating and forward of a notification message, i.e. the generating of an event and sending a notification as detailed above, and therefore, the Examiner believes that the limitation is met by Waldo.

Applicant argues that the cited combination does not teach generating and issuing a registration service request upon opening an application or process. Applicant supports this argument by stating that the Examiner stated that Joyce failed to teach the cited limitation and Bonnell provides no support for the limitation. The examiner disagrees. Joyce teaches when a monitorable process enters a Jipc system or is created, it is automatically included in any monitoring session active on its host machine by generating and sending a monitorable event and displaying the event on the consoles. The examiner states that Joyce does not explicitly mention that the monitorable event is not sent over a network, i.e. there does not exist a network communication facility that sends the event from the process to the console. The examiner used the teachings of Bonnell in teach that a process that is monitored on on system sends messages / information over a network to a console for handling. Therefore based on the combination the event is sent from a remote system to the console for display. Therefore, the examiner believes that the combination teach the



cited limitation and not just Bonnell as argued by Application. Therefore, since all the limitations of the claims are met by the rejection above, the rejections are maintained.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

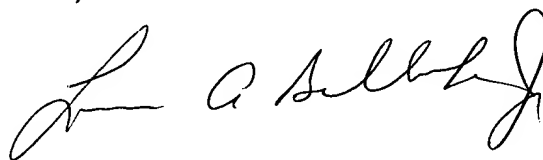
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (703) 305-0439. The examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "L. A. Selby".

lab